

REMARKS

Claims 1, 2, 4-14 and 16-24 are pending in the application, of which claims 1 and 13 are independent. Claims 3 and 15 are previously canceled. Claims 1, 2, 4, 6, 13, 16 and 18 are amended. Support for the amendments can be found throughout the Specification and specifically at page 5, ¶ 2 - page 6, ¶ 1; page 7, ¶ 2; page 15, ¶ 2 and 4. No new matter is added. The following comments address all stated grounds for objection or rejection, and place the presently pending claims, as identified above, in condition for allowance.

I. Objection to Claims

The Examiner objects to claims 6 and 18 because claim 6 depends from canceled claim 3 and claim 18 depends from canceled claim 15.

Applicants amended claim 6 to depend from claim 2. Applicants also amended claim 18 to depend from claim 14. Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the objections to claims 6 and 18.

II. Claim Rejections under 35 U.S.C. § 103(a)

Claims 1-2, 7-11, 13-14 and 19-23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,122,544 to Organ (hereafter “Organ”) in view of U.S. Patent No. 5,196,008 to Kuenecke et al. (hereafter “Kuenecke”) further in view of U.S. Patent No. 4,416,276 to Newton et al. (hereafter “Newton”).

Claims 12 and 24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the Organ reference in view of the Kuenecke reference and the Newton reference further in view of U.S. Patent No. 5,419,337 to Dempsey et al. (hereafter “Dempsey”).

Claims 4-5 and 16-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the Organ reference in view of the Kuenecke reference and the Newton reference further in view of U.S. Patent No. 6,171,304 to Netherly et al. (hereafter “Netherly’304”).

Claims 6 and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the Organ reference in view of the Kuenecke reference and the Newton reference further in view of U.S. Patent No. 6,007,532 to Netherly et al. (hereafter “Netherly’532”).

Applicants respectfully submit that the combination of the Organ, Kuenecke and Newton references fail to teach or suggest *determining whether the plurality of electrodes are suitably coupled to the body part based on a comparison of the bipolar electrode phase measurement to the anthropometric data*, as recited in amended claims 1 and 13.

The Organ reference teaches scanning the presence (or absence) of breast anomalies, particularly benign and malignant tumors based on the organ's impedance characteristics. *See* Col. 2, lines 22-32. In the Organ reference, the electrical impedance is measured by using four electrodes. *See* Col. 4, lines 14-15. The Organ reference further teaches that the electrodes are attached to the skin side of a main section of an array and are made of an electrically conductive, self adhesive material so that when the array is positioned in the skin and pressed against it, the adhesive quality of the electrodes assures good skin fixation. *See* Col. 4, lines 49-54.

As indicated by the Examiner on page 4 of the Office Action, the Organ reference does not teach or suggest an electrode assessment measurement that includes a bipolar electrode assessment measurement that compares the measurement to anthropometric data indicative of adequate coupling. The Organ reference further fails to teach or suggest that the bipolar electrode assessment measurement is a *bipolar electrode phase measurement*, as recited by amended claims 1 and 13.

The Examiner relies on the Kuenecke and Newton reference to cure the deficiencies of the Organ reference. Neither Kuenecke nor Newton references teach or suggest that the bipolar electrode assessment measurement is *bipolar electrode phase measurement*, as recited by amended claims 1 and 13.

The Kuenecke reference does not compare an electrode phase measurement to anthropometric data but rather relies on a comparison with previously acquired values. *See* Col. 4, lines 1-2. Furthermore, the Kuenecke reference presupposes that the electrode makes adequate electrical contact. *See* Col 3, lines 40-45. The Kuenecke reference monitors impedance to determine detachment of electrodes. *See* Col 1, lines 54-60.

The Newton reference, similar to the Kuenecke reference, monitors impedance to determine detachment of electrodes. *See* Col. 2, lines 1-2. The Newton reference does not describe measuring the phase to monitor the electrode contact as recited in amended claims 1

and 13. The present application describes the advantages of using phase instead of impedance magnitude which includes: that the impedance can vary greatly from person to person; stray capacitance can cause an impedance measurement to interfere with detecting disconnected electrodes; and sweat or oil on body could cause a low impedance to be measured even where there is poor electrode contact. *See* Specification at page 5, ¶ 2 - page 6, ¶ 1.

The Kuenecke and Newton references, alone or in combination with the Organ reference, do not teach or suggest *determining whether the plurality of electrodes are suitably coupled to the body part based on a comparison of the bipolar electrode phase measurement to the anthropometric data*, as recited by amended claims 1 and 13.

For at least these reasons, Applicants respectfully contend that Organ, Kuenecke or Newton references does not teach or suggest, alone or in combination, all of the patentable features of claims 1 and 13, as amended. Claims 2 and 4-12 depend, directly or indirectly, from claim 1, and therefore incorporate all of the patentable features of claim 1. Claims 14 and 16-24 depend, directly or indirectly, from claim 13, and therefore incorporate all of the patentable features of claim 13.

The Examiner cited the Netherly'304 reference against claims 4-5 and 16-17 for disclosing a system for determining whether electrodes are suitably coupled to a patient body part through computation of a phase angle of impedance. However, the Netherly'304 reference does not compare the phase with anthropometric data to determine adequate coupling but rather presupposes that the coupling is adequate and monitors for detachment. The phase component in the device of the Netherly'304 reference is introduced by using a lossy dielectric in the electrode and is not due to quality of the skin contact. *See* Col. 3, lines 13-27. The Netherly'304 reference monitors change in the phase angle due to the relative area of the bare metal and lossy dielectric contacting the patient.

Applicants respectfully submit that the prior art of record does not teach or suggest *determining whether the plurality of electrodes are suitably coupled to the body part based on a comparison of the bipolar electrode phase measurement to the anthropometric data*, as recited by amended claims 1 and 13. Dependent claims incorporate each and every element of the independent claim upon which they depend.

Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the rejections of claims 1, 2, 4-14 and 16-24 under 35 U.S.C. § 103(a).

CONCLUSION

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Please charge any shortage or credit any overpayment of fees to our Deposit Account No. 12-0080, under Order No. BEW-005RCE. In the event that a petition for an extension of time is required to be submitted herewith, and the requisite petition does not accompany this response, the undersigned hereby petitions under 37 C.F.R. § 1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fee due is authorized to be charged to the aforementioned Deposit Account.

Dated: August 18, 2008

Respectfully submitted,

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